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# Introduction

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## Basic data call configuration

The Meridian Data Services features support a wide range of dial-up data communication activities. These applications fall into different basic categories based on equipment configuration. These categories are designated as follows:

- Local Terminal to Terminal activities involve in-house communication between intelligent terminals, display terminals, and data entry devices. Word processor communication and conversational information exchange fall into this category (Figure 1).
- Terminal to Terminal Computer Port configurations support applications such as distributed data processing, time-shared computing, and inquiry/response (Figure 2).
- Terminal to Remote Device applications involve the use of a modem pool to access analog lines for external data communications. The Meridian 1 permits external data calling on facilities also used for voice communications, such as WATS, FX and TIE lines (Figure 3).
- Remote Terminal to Local Device applications involve the use of an inbound modem pool for incoming calls to access local devices (terminals or computer ports). The Meridian 1 permits incoming data calling on facilities also used for voice communications, such as WATS, FX and TIE lines. (Figure 4).

**Note:** Remote Peripheral Equipment (RPE) may also be used for remote terminals to local device operation. The various data applications and hardware that may be connected to the Meridian 1 are shown in Figure 5.

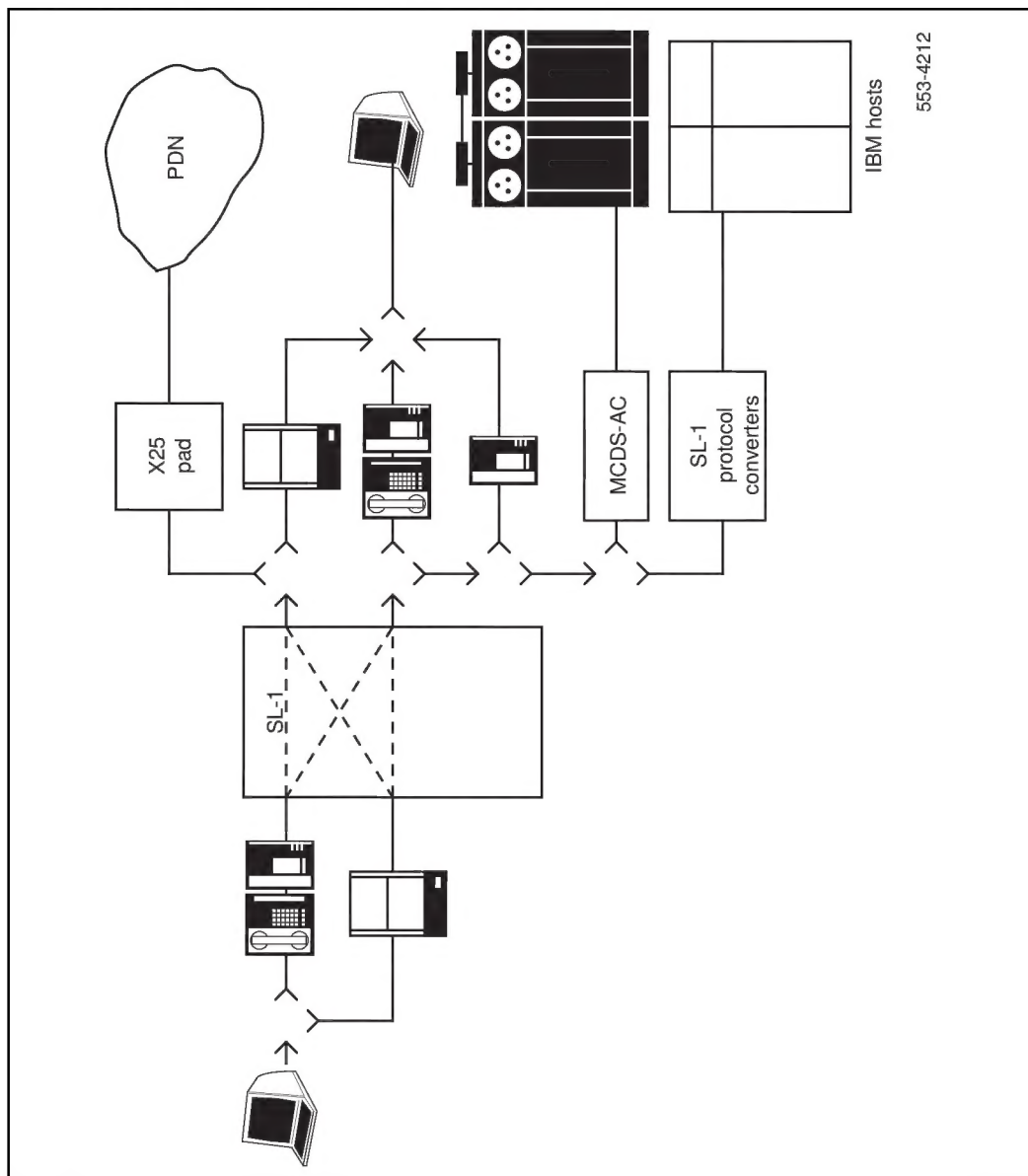
The modem pool configuration provides internal data stations access to shared dial-up modems for outgoing trunk calls or remote terminals access to local computer ports over a voice grade network. An Add-on Data Module (ADM) connected to the modem provides the Data Directory Number (DDN) required for the receipt of incoming calls to the pooled modem.

## **Automated Modem Pooling**

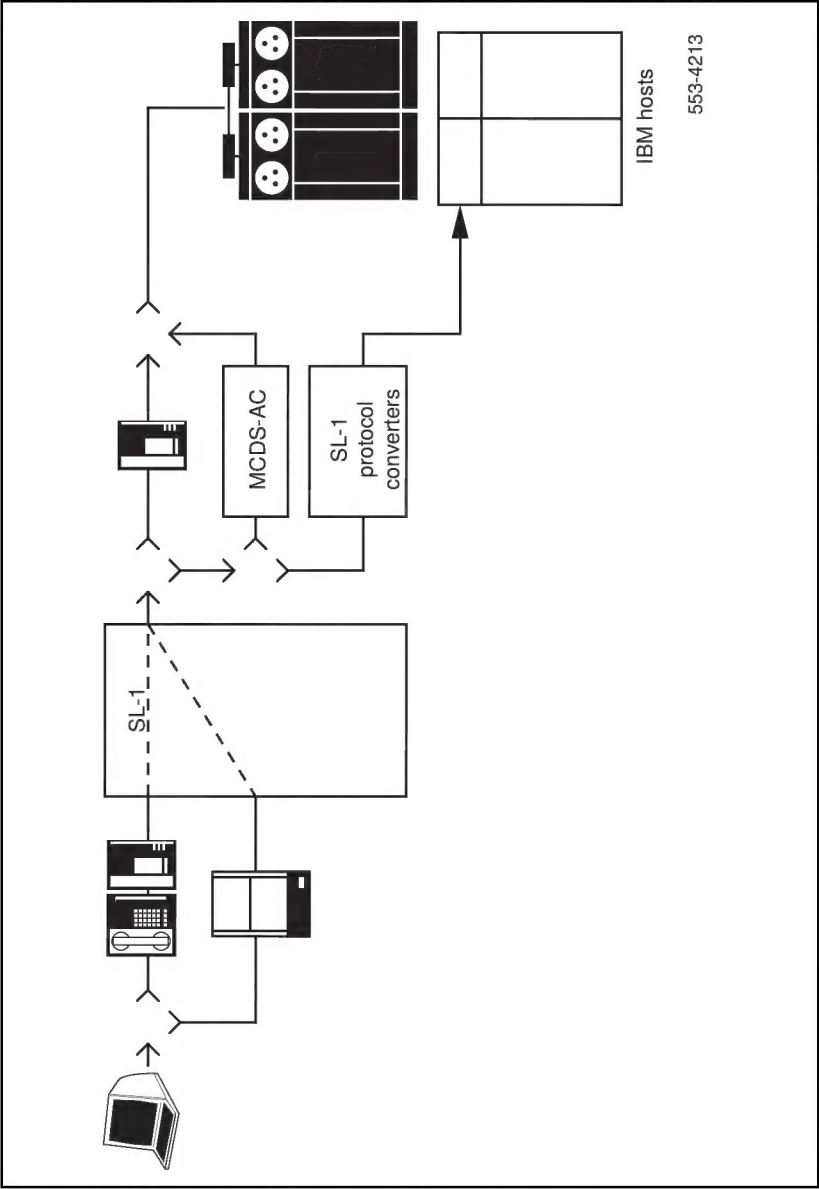
Meridian 1 offices that use X11 release 5 provide the database to accommodate ADM Trunk Group and the optional Automated Modem Pooling (AMP) features. These features allow access to local or remote data stations using ADM/Modem pairs with a single-step dialing procedure and eliminate the need for separate inbound and outbound pools. AMP uses the Dataport Hunting feature to select the appropriate data set or dataport.

### Figure 1

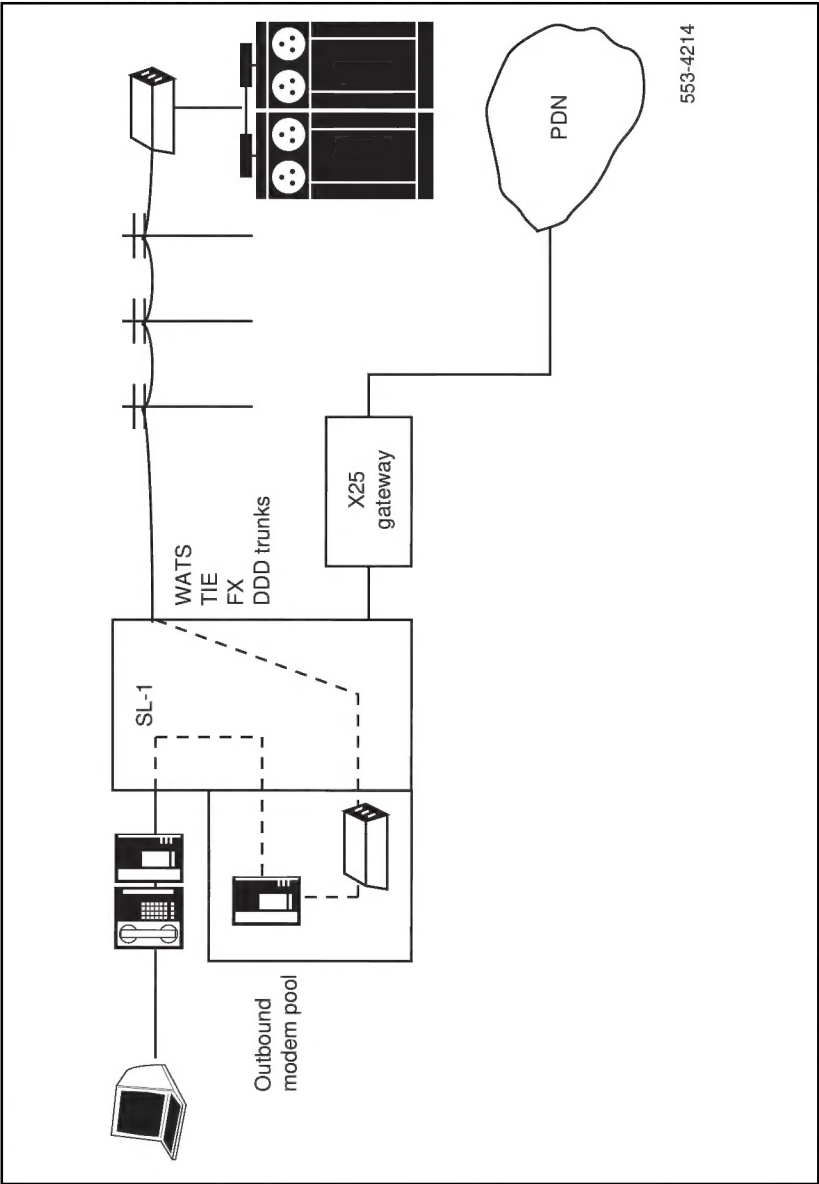
#### Terminal to Terminal Data Call configuration



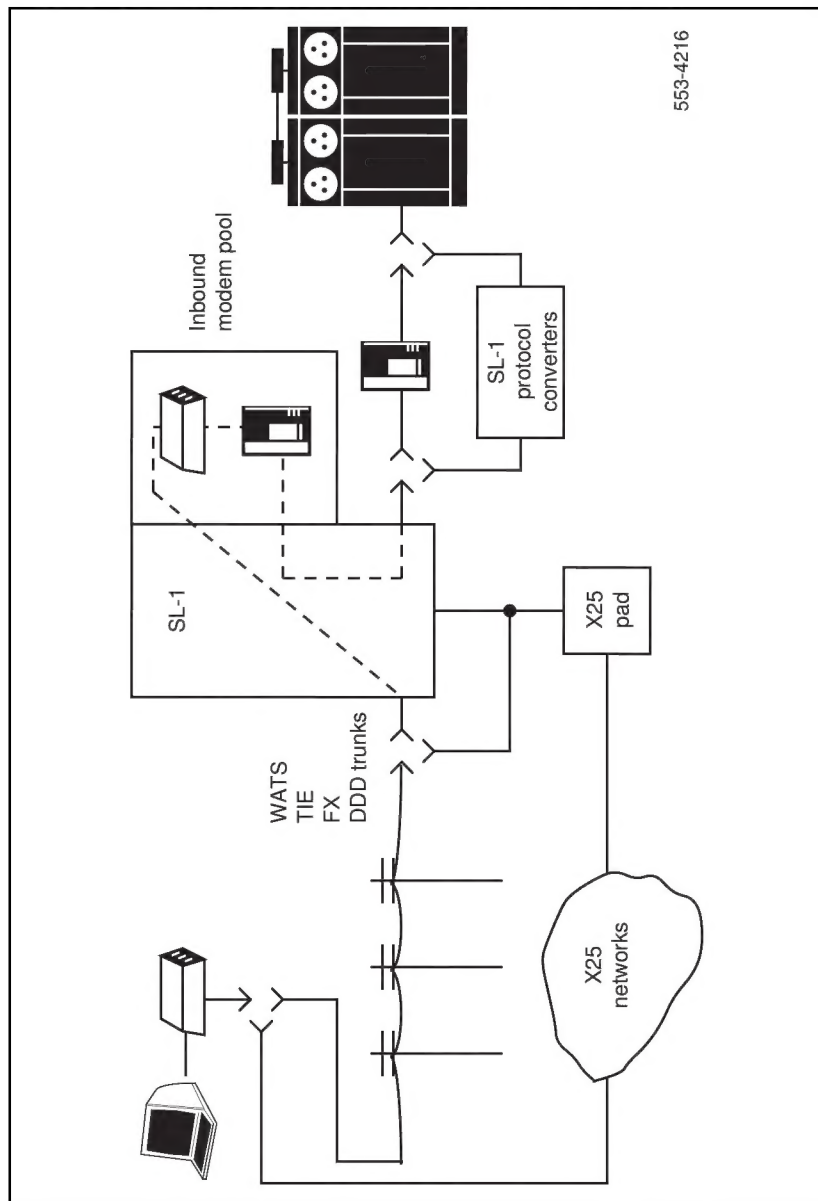
**Figure 2**  
**Terminal to Terminal Computer Port Data Call configuration**



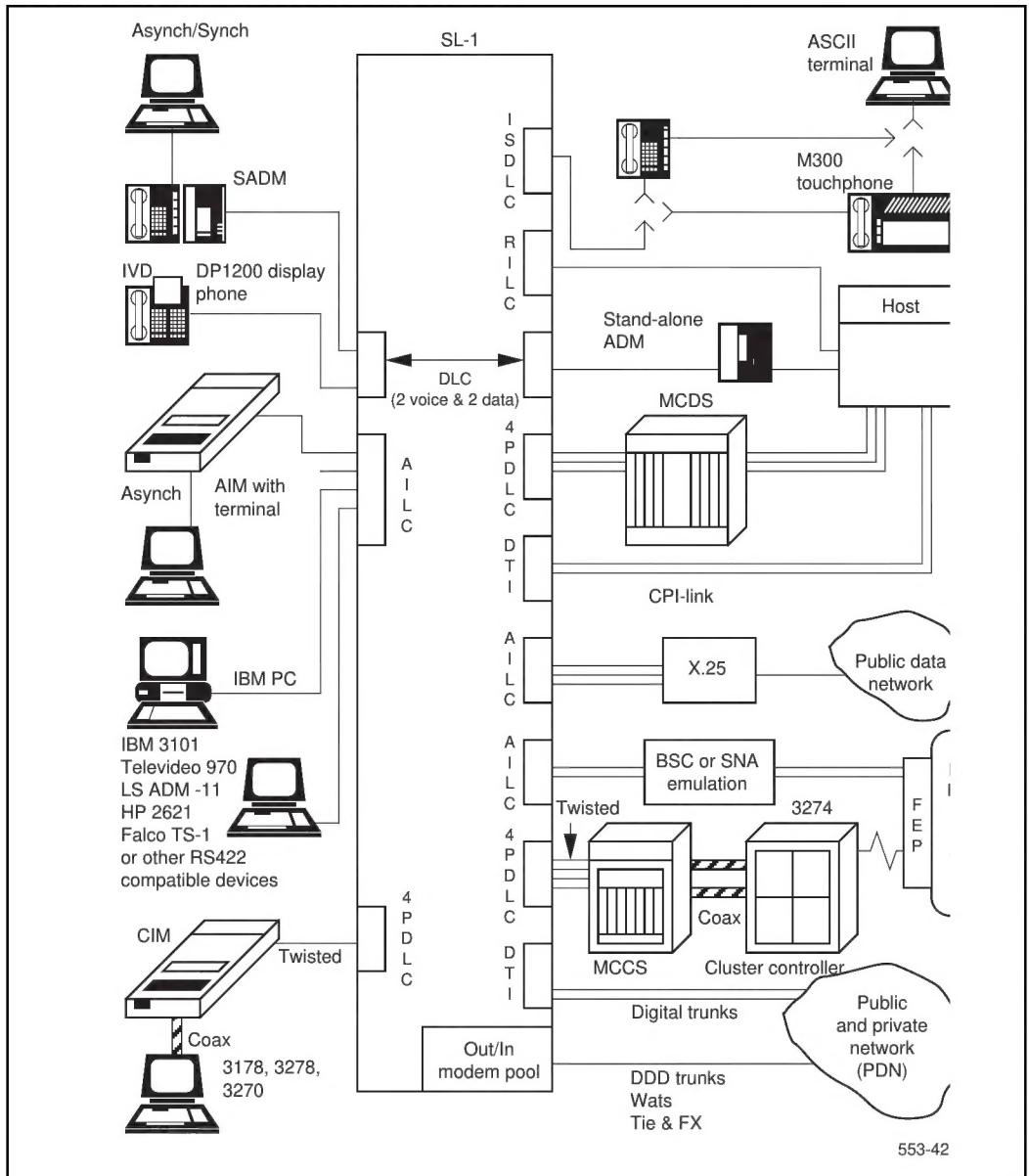
**Figure 3**  
**Terminal to Remote Device Data Call configuration**



**Figure 4**  
**Remote Terminal to Local Device Data Call configuration**



**Figure 5**  
**Overview of Meridian 1 Data Applications**



## Capabilities

Meridian Data Services allow for flexible configuration of data terminal equipment and permit the customer's data communications equipment to correspond to actual usage. The following is a summary of the advantages that implementation of the Meridian 1 data feature offers:

- Eliminates the need for separate voice and data switching systems and allows the use of common wiring.
- Provides efficient utilization of trunks or lines by eliminating the requirement for separate trunks or dedicated lines, as would be the case if a separate data switching system or private or leased lines were used.
- Extends to data users several Meridian 1 system and station features typically limited to voice calling only.
- Provides simultaneous voice and data calling capabilities through an SL-1 telephone using the standard two-pair wire.
- Allows convenient relocation of data terminal equipment.
- Allows multiple device access from data terminal equipment.
- Provides flexible operating distances of equipment (for example, terminals and computers) from the Meridian 1.
- Eliminates most equipment associated with fixed data configurations (e.g., base-band modems, dedicated telephone sets and wiring).
- Provides efficient use of computer ports through use of the queuing and hunting features offered by Meridian 1.
- Allows the voice-grade modems required for incoming/outgoing trunk calls to be shared between users and trunks on a non-dedicated hunt group basis. These modems can thus be supplied according to actual data traffic requirements.
- Allows the co-located ADM or AIM or ASIM to access the Serial Data Interface (SDI) port.
- Provides Synchronous Data Switching, Synchronous Keypad dialing, Asynchronous Keyboard Dialing (KBD) and Inbound Modem Pooling.

Offices that are equipped with the AMP feature do not require separate inbound and outbound modem pools. The other pooling requirements still apply.



## Hardware

Configuring data features in the Meridian 1 may require different hardware components. The hardware items available are

### Modules

- QMT7 Asynchronous Data Module (ADM)
- QMT8 Synchronous Add-on Data Module (SADM)
- QMT9 Asynchronous Interface Module (AIM)
- QMT11 Asynchronous Synchronous Interface Module (ASIM)
- QMT12 V.35 ADM
- Asynchronous Interface Line Unit
- Enhanced Asynchronous Interface Line Unit
- NT9N20 Coax Interface Module (CIM)
- Meridian SL-1/74 Protocol Converter
- Meridian SL-1/71 Protocol Converter
- Meridian SL-1/50 Protocol Converter (System 36 Gateway)
- SLX25-108A X.25 Gateway (110 V, 8-port)
- SLX25-116A X.25 Gateway (110 V, 16-port)
- SLX25-208A X.25 Gateway (220 V, 8-port)
- SLX25-216A X.25 Gateway (220 V, 16-port)
- Meridian M2000 or M2317 Digital Telephones

### **Circuit Cards**

- QPC311(QPC341) Data Line Card (DLC)
- QPC432 4-Port Data Line Card (4PDL)
- QPC353(QPC354) Modem Pool Line Card (MPLC)
- QPC60(QPC284) 500 Set Line Card
- QPC452 500 Set Line Card (Double Density)
- QPC397 4-port Multi-Channel Data System (MCDS) Asynchronous Card (MCDS-AC)
- QPC430 4-port Asynchronous Interface Line Card (AILC)
- QPC472 Digital Trunk Interface (DTI or CPI)
- QPC512 Personal Computer Interface (PCI) Card
- QPC578C Integrated Services Digital Line Card (ISDLC)
- QPC723 RS-232 Interface Line Card (RILC)
- NT9N02 MCCA Interface Card (CIC)

The A-Law equivalent circuit pack numbers, where available, are shown in brackets ( ) following the  $\mu$ -Law numbers.

### **Miscellaneous**

- QSD27 MCDS Shelf
- QSY27 MCDS Power Supply (110 V)
- QSY32 MCDS Power Supply (220 V)
- QCA76 Large MCDS Cabinet (optional)
- QCA77 Small MCDS Cabinet (optional)
- NT9N01 Multi-Channel Coax System (MCCA)
- Spectron Digital Patch Panel (optional)